

REQUEST FOR QUALIFICATIONS FOR ENGINEERING/GIS SERVICES

GIS STANDARDS AND DATA CONSOLIDATION

I. Purpose/Description

The City of Beavercreek requests engineering and GIS services from a qualified consultant for the purpose of preparing City GIS Standards and consolidation of existing GIS data to developed standards. GIS standards will be developed and distributed in the form of a manual that will be used internally and externally for future GIS needs. GIS data and standards will be developed to be compatible with current asset and permitting software from Dude Solutions (Asset Essentials, SmartGov) used by the City for asset management, code enforcement, and permitting. Standards will also be compatible with data from county, ODOT, and other state GIS resources (OGRIP). In addition, final products will outline short, medium, and long term hardware, software, and training needs. These will range from short term (within 24 months) computer, internet, and server needs for desktop and web based software along with standardized data organization to long term (10 or more years) server, field equipment, data collection and hosting methods both internally and externally to be received and used by the City.

Along with the GIS Standards development, the City of Beavercreek requests engineering and GIS services from a qualified consultant for data consolidation under developed GIS standards as mentioned above. This will include consolidation and data “cleanup” of existing data and basemaps to developed standards discussed below.

II. Retention of a Consultant for Professional Services

1. Consultants wishing to provide Engineering and GIS Services for the City of Beavercreek shall submit three (3) copies of their letter of interest to the Office of the City Engineer, 1368 Research Park Drive, Beavercreek, Ohio 45432, no later than 2:00 P.M., Friday, **September 4, 2020**. All such submittals shall be prepared and presented at the consultant’s expense. LOIs shall be no longer than **15 pages** in length, including project approach.
2. A committee will be established by the City of Beavercreek which will review and rate the letters of interest according to the identified rating criteria (see attached criteria). The committee will review and rank all proposals, and will recommend to the City Manager the firm

which it considers to be the most qualified to provide the required professional engineering services. All contract negotiations are subject to the approval of the City Manager.

3. The format and number of pages for the letters of interest shall conform to the requirements listed in attachment 'B'. Submittals that do not conform to this format may not be considered. Consultant Interviews will not be required.

III. Scope of Work

GIS Standards

The establishment and creation of GIS Standards and Manual to consist of the following at a minimum to be compatible with ESRI ArcGIS, Dude Solutions software (Asset Essentials, SmartGov), and external data including, but not limited to, county, ODOT, and state (OGRIP), EPA:

1. Coordinate System to Use
 - a. Standard system typical to this area (ie., NAD83)
2. Naming Conventions
 - a. Fields
 - b. Feature Classes
 - c. Data (ie, MH-12345)
 - d. Basemaps
 - e. Organizational Structure (server, files, folder hierarchy)
3. Symbol structure
 - a. Standardization of symbols used to represent data (i.e. lines, dots) for different assets (i.e., storm, sanitary, roadway, lighting)
 - b. Includes types, color, font, etc.
4. Asset/Feature Onboarding, Collecting, Maintenance Forecasting
 - a. This will be used primarily for long term as we move to collecting data via app, etc.
 - b. Determine ways this can be collected (app, data collector, GPS unit, etc.) and uploaded
 - c. Determine ways to be done internally with maintenance crews (primary) and externally via consultant (secondary, periodic)
 - d. Provide estimated costs for hardware, software, etc.
 - e. Public Service will be using this data with Asset Essentials for asset forecasting for future maintenance and replacement.
5. Font/text standards
 - a. This is for mapping and other produced items we will use for the public and at meetings.
 - b. Looking for labels, titles, legends, etc.
6. Basemap standards

- a. Short term will be to get data incorporated and revised to work with Dude Solutions software for their base mapping.
 - b. Short term will also be to do Data Consolidation as specified in the Data Consolidation section.
 - c. Medium to long term item for web based basemaps for internal and external use on the City website.
- 7. Import/export procedures/standards
 - a. File types
 - b. Coordinate systems
 - c. What is included in metadata
- 8. Compatibility with outside data
 - a. AutoCAD will be used for most plan sets.
 - b. Incorporation of AutoCAD files (how to convert to GIS standards?)
 - c. Data calculations and other spreadsheets
 - d. Hyperlinking to be done to access outside data in other programs/warehouses (county, state, OGRIP, etc.) as needed.
- 9. Procedures for incorporation of field data into ESRI and Asset Essentials.
 - a. This goes along with #4.
 - b. End user procedures for collecting field data.
 - c. Programs needed
 - d. Ways to automatically upload data to developed Beavercreek asset databases.
 - e. Uploading and data sharing with Asset Essentials to have real time data (medium to long term?)
- 10. Product deliverables and standards for new development, projects, engineering work for incorporation into database.
 - a. As part of the manual produced
 - b. This will be given to developers and consultants working on private developments and Engineering projects
 - c. Presentation, display standards
- 11. Hyperlink standards and procedures to existing scanned documents.
 - a. Needed for future employees so that we have an internal manual and procedure for employees not familiar with doing this task.
- 12. Standard basemaps to be used for departments:
 - a. Pavement Condition
 - b. Fiber Optic/Signal Network (signals, cabinets, conduit, overhead, etc.)
 - c. Storm sewer map
 - d. Detention/Retention Pond Map
 - e. Sign Map
 - f. Lighting
 - g. Parks Map

- h. Guardrail
- i. Road Centerline Map (Contain ODOT SLM data and County Data)
- j. Planning Maps (TBD at kickoff)
- k. Others as determined during discussion at kickoff meeting
- 13. Data Hosting and Serving
 - a. Hosting Options (who will/can host)
 - b. Access Requirements/Restrictions
 - c. Standards to be able to use consolidated existing data internally (short term)
 - d. Determine hardware and software upgrades and costs needed to host asset collection internally (medium to long term)
 - e. Determine hardware and software upgrades and costs needed for asset data on “cloud” (medium term)
 - f. Standards needed for large data hosting and serving
- 14. Schedule for updating Standards based on new technology

These standards will be used in multiple departments for assets, buildings, engineering, maintenance, parks, planning & zoning, etc.

Data Consolidation

Existing data and maps will require updating to new standards developed based on the above developed GIS Standards. These include but are not limited to:

- 1. Stormwater GIS Map
- 2. Detention/Retention Pond Map
- 3. Roadway Map
- 4. Lighting Map
- 5. Pavement Condition Rating
 - a. City has existing internal rating data captured annually as part of the resurfacing program.
 - b. Short term would be to incorporate this in a better way than just new join tables, maybe real time?
 - c. Medium term would be to have a consultant collect all data per City standards to incorporate.
 - d. Long term – City will continue to do pavement ratings internally with real time information being uploaded to Asset Essentials through Asset Essentials or other software similar to current methods and algorithms for our rating system. (App?) (Also will include periodic consultant performed)

This will also include setup for mapping where data is available but not currently incorporated into any mapping:

1. Lighting
2. Fiber Optic
3. Guardrail
4. Streetscape
5. Traffic
6. Others to be discussed at kickoff

MEETINGS

1. Consultant shall include the cost of the following meetings at a minimum:
 - a. Professional services contract negotiations and preliminary meeting with City Staff for transfer of information.
 - b. Consultant to prepare communication plan with recommended meetings and frequency as part of LOI and contract.
 - c. The consultant will keep minutes of all meetings and will distribute copies of the minutes to all in attendance.
 - d. Final meeting with final deliverables.

SUBMITTALS

1. The consultant shall prepare the following submittals at a minimum:
 - a. Manual developed for GIS Standards to be around 50 pages in length.
 - b. Six (6) copies of the preliminary, interim, and final GIS Standards Manual, to the City of Beavercreek.
 - c. Ten (10) paper copies of the final GIS Standards Manual to the City of Beavercreek. Two (2) electronic copies in Microsoft Word and Adobe PDF format.
 - d. ESRI electronic files for updated base maps.
 - e. Electronic templates for maps, feature classes, data forms, etc.
 - f. Cost analysis and estimate for field collection and data input.

- g. Cost analysis and projected implementation schedule for upgrades with hardware and software for hosting and serving.
- h. Consolidated electronic data from existing data revised to developed standards.

IV. Information/Services to be provided by the Owner

- 1. Available mapping, plans, GIS data.
- 2. Copies of reports, references, historical data, etc.
- 3. Timely review of reports and plans.

V. Miscellaneous

- 1. As a condition for selection, the Consultant is required to agree to the following, inasmuch as many of the items listed herein are important to the City in terms of selection and/or will be an integral part of an agreement between the Consultant and the City.
- 2. The City reserves the right to accept or reject any or all proposals.
- 3. By submission of a proposal, the Consultant agrees that said proposal shall not be withdrawn nor altered without the written permission of the City for sixty days after submission. Furthermore, the Consultant, if selected, will enter into an agreement within thirty days after being selected under the terms, conditions, etc., consistent with the submitted proposal or said terms and conditions as mutually agreeable between the City and Consultant.
- 4. The Consultant selected must carry insurance policies which hold the City, its elected and appointed officials, and employees harmless from claims, suits, etc., of the firm's employees or equipment used for the project on those items listed in the Scope of Work. In addition, liability insurance coverage must be provided to protect himself from claims under worker's compensation acts; claims for damages because of bodily injury including personal injury, sickness or disease, or death of any of his employees or of any person other than his employees; and from destruction of tangible property including loss of use resulting therefrom; and from claims arising out of the performance of professional services caused by any errors, omissions or negligent acts for which he is

legally liable. The City of Beavercreek shall be indicted as an added insured on a policy in an amount no less than \$1,000,000.00.

5. There will be no reimbursement for costs incurred by the consultants prior to selection of the Consultant by City staff.
6. The consulting firm must provide all necessary labor, equipment, and materials necessary for completing the work unless otherwise agreed to in writing.
7. The consulting firm must assure the City of Beavercreek that it is an equal opportunity employer and that it does not and will not discriminate in any fashion in regard to race, sex, national origin, political affiliation, disability (handicap), and age where protected by law, or any other non-merit or non-occupational related factors.
8. Assurance must be given that all contract documents (plans, specifications, etc.) will meet all applicable codes and be cleared at the consultant's expense with all appropriate agencies.
9. The consulting firm agrees that information submitted as a result of the request for proposals becomes the sole property of the City of Beavercreek. (All information, plans, specifications, etc., generated as a result of an agreement between the City of Beavercreek once said Consultant is compensated for said work).
10. Consultant agrees to submit a copy of their firm's current workmen's compensation certificate.

VI. Attachments

- A. Evaluation Form
- B. Proposal Rating Criteria

Attachment 'A'

EVALUATION FORM FOR STATEMENTS OF QUALIFICATIONS

Name of Project _____

Name of Firm _____

Name of Evaluators _____

CRITERIA	TOTAL VALUE	SCORE
Project Manager	10	
Assigned Staff Experience	20	
Firm's Current Workload/Availability of Personnel	10	
Consultant's Past Performance	15	
Communication Plan	15	
Project Approach	30	
TOTAL	100	

Attachment 'B'

PROPOSAL RATING CRITERIA

All proposals shall be a maximum of 15 pages with the following criteria and information:

1. **Project Manager (1 page)** – The project manager sections shall include the following at a minimum:
 - a. Years of experience
 - b. Example projects (year completed, contact person)
 - c. Short description of educational background, specifically relating to GIS.
2. **Assigned Staff (2-3 pages)** – The assigned staff section shall include the following at a minimum:
 - a. Years of experience
 - b. Short description of educational background, specifically relating to GIS.
 - c. Role with this project.
 - d. Items to be worked on with this project.
3. **Firm Current Workload/Availability (1 page)** – Discuss/outline the availability of the firm and assigned staff availability.
4. **Consultant Past Performance (1 page)** – Provide a minimum of three (3) past projects with a short description, references, and assigned staff experience with these projects.
5. **Communication Plan (2-3 pages)** – Discuss communication plan for meetings, frequency, timeline, points of contact, etc.
6. **Project Approach (5-6 pages)** – Project approach will consist of the following items at a minimum to be discussed in detail:
 - a. Potential City Needs
 - b. GIS Standards Manual potential layout
 - c. Data consolidation methods
 - d. Timelines
 - e. Innovative ideas